

RESTRICTED

SECTION

7



CLASSIFICATION CHANGED
RESTRICTED

ASF. Ci 325-25 Aug 45

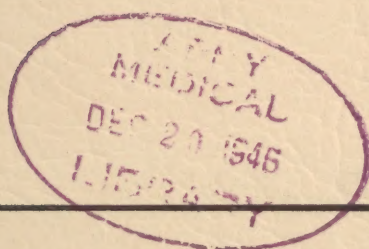
DATE: 17 April 46 *Charles S. Juliano*

CHARLES S. JULIANO, Capt, MAC
Asst. Security Officer, GAO

WAR DEPT.-S.G.O.
IN

1943 MAY 19 PM 4:50

HEALTH



MONTHLY PROGRESS REPORT

CONFIDENTIAL

DATA AS OF APRIL 30, 1943

79

ARMY SERVICE FORCES, WAR DEPARTMENT

RESTRICTED

ABOUT THIS REPORT

In February, Health of the Army was separated from Section 5 of the Monthly Progress Report issued by ADF Headquarters. This action gave The Surgeon General a better opportunity to make the report an effective means of presenting to higher headquarters a current, nontechnical picture of the Health of the Army.

It is believed that it continues to be too heavily weighted on the side of elementary quantitative facts and that it suffers from a dearth of substantial, interpretative comment. Your critical opinion is invited as to the scope, detail, and editorial policy of recent issues of the report. Suggestions and recommendations may be addressed to the Progress Branch, Control Division, S.G.O. There appears below a list of sample topics which might be covered in future issues.

(1) Effects of climate and geography upon health and military efficiency.

(2) Discussion of the general medical problem in specific areas, e. g., South Pacific, Southwest Pacific, or smaller commands if the larger ones are difficult to generalize.

(3) Meningitis, therapy and mortality.

(4) Mortality from wounds, this war and last.

(5) Role of sulfa drugs in modern therapy, from the standpoint of reduced mortality, alleviation of severity of symptoms, avoidance of complications, reduction in average days lost, etc.

(6) More adequate discussions of particular diseases, e. g., malaria, dengue, typhus, diarrhea and dysentery, pneumonias and neuropsychiatric diseases.

(7) Sanitary measures to control disease, especially malaria, typhus, and the diarrheas and dysenteries, with an attempt at evaluation.

(8) Discussion of nonbattle injuries by type, frequency, etc., and of the nature of the hazards faced.

(9) Food and Nutrition

Comparison of NRC requirements with results of mess analyses
Nutritional content of various rations
Avoidance or extent of any deficiency diseases
Food inspection

(10) Induction and discharge statistics for WAAC's.

(11) Length of hospitalization.

(12) Veterinary health.

(13) Organization of medical service at various echelons.

**THIS DOCUMENT CONTAINS
INFORMATION AFFECTING THE
NATIONAL DEFENSE OF THE
UNITED STATES WITHIN THE
MEANING OF THE ESPIONAGE
ACT, 50 U. S. C., 31 AND 32, AS
AMENDED. ITS TRANSMISSION
OR THE REVELATION OF ITS
CONTENTS IN ANY MANNER
TO AN UNAUTHORIZED PERSON
IS PROHIBITED BY LAW.**

OFFICE OF THE SURGEON GENERAL

HEADQUARTERS. ARMY SERVICE FORCES , WAR DEPARTMENT

HEALTH

TABLE OF CONTENTS

PART I

DISEASE AND INJURY

Noneffective Rates	
Continental U. S.	1
Overseas.	2
All Diseases and Injuries	3
Respiratory Disease	4
Venereal Disease	5
Meningitis	6
Mumps, Measles, and Scarlet Fever	8
Dental Treatment	9

PART II

HOSPITALIZATION

Utilization and Requirements for Beds	
General Hospitals	11
Station Hospitals	12
Trend of Utilization of Beds	13
Variation in Utilization of Beds	
General Hospitals	14
Station Hospitals	15
Evacuation of Patients from Overseas	16

PART III

MORTALITY

Death Rates	
Continental U. S.	17
Overseas.	18

PART IV

MISCELLANEOUS

Discharge for Disability.	19
-----------------------------------	----

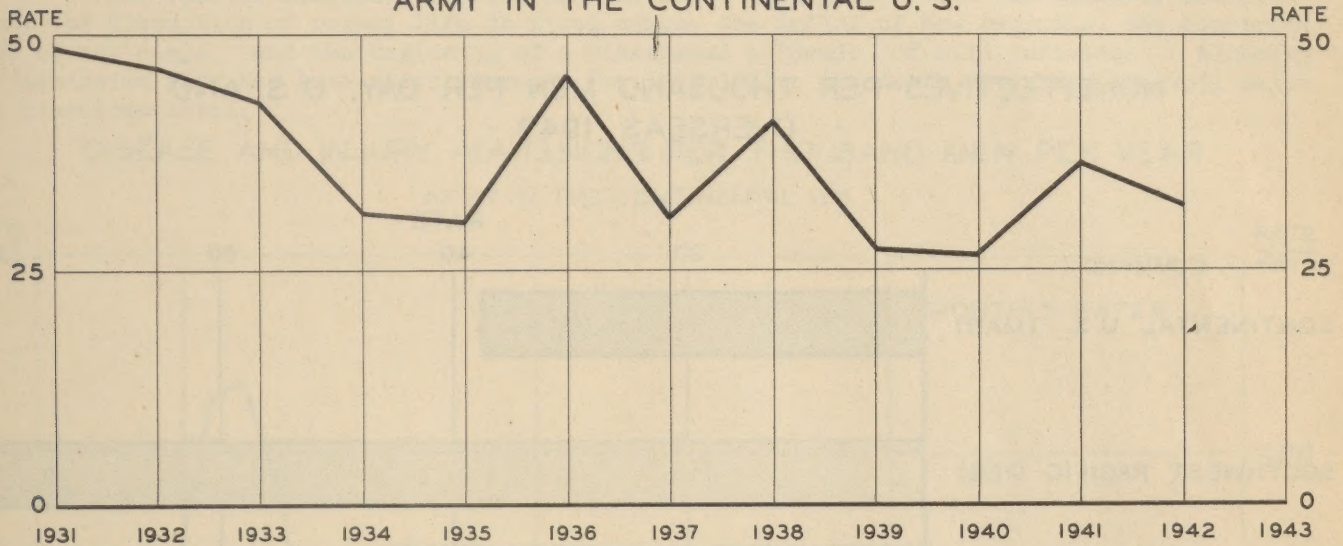
DISEASE AND INJURY

CONFIDENTIAL

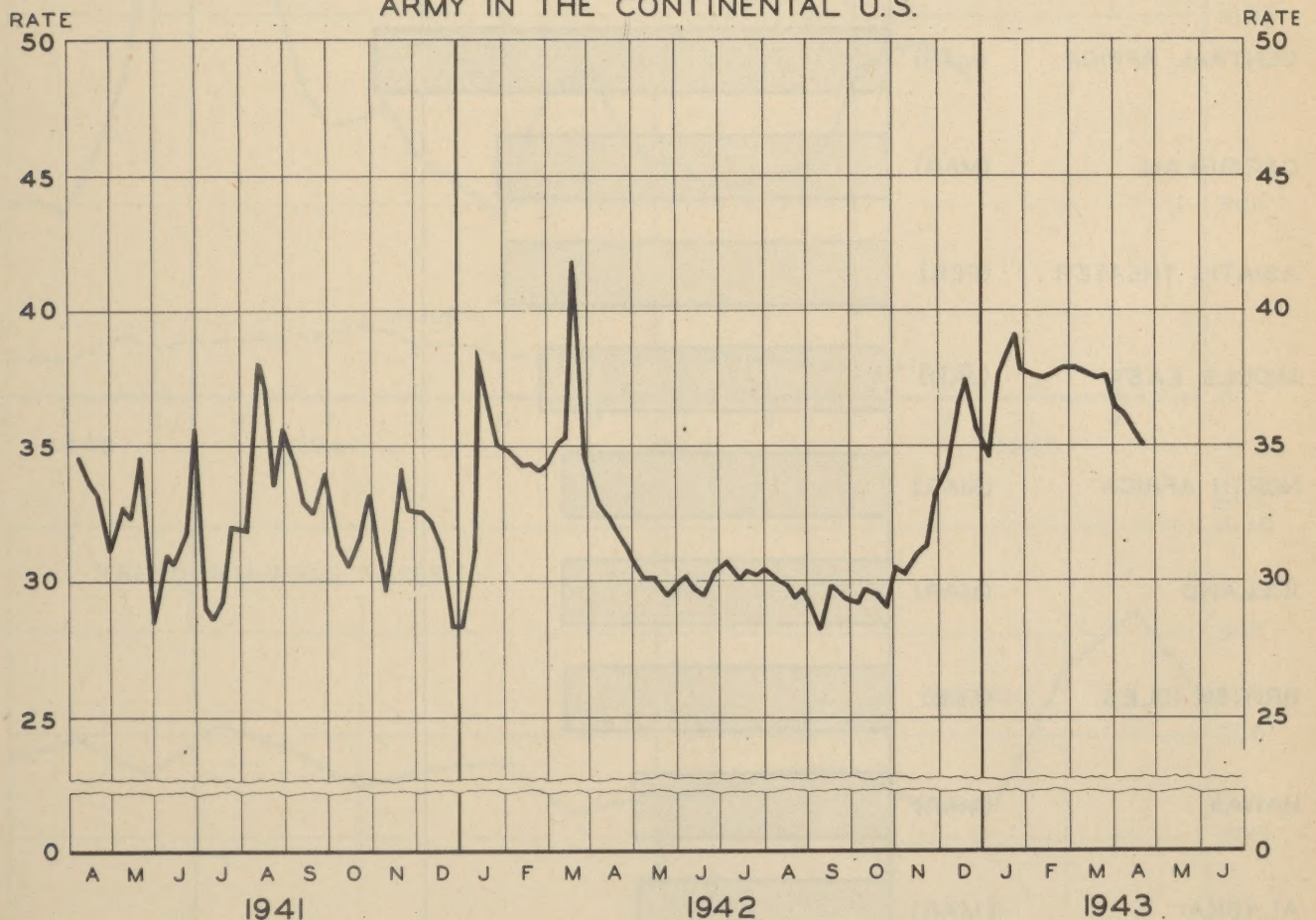
NONEFFECTIVE RATES, CONTINENTAL U. S.

Having remained at about 38 per thousand during February and March, the average daily noneffective rate among troops stationed in the Continental U. S. fell steadily during April to reach a low point of 35 for the week ending April 24. The line graph below traces the rate from April, 1941, to date. The chart at the bottom of the page depicts the movement of the average annual figure for the period 1931-1942.

TREND OF ANNUAL NONEFFECTIVE RATES
ARMY IN THE CONTINENTAL U. S.



NONEFFECTIVES PER THOUSAND MEN PER DAY BY WEEKS
ARMY IN THE CONTINENTAL U. S.



Note: An admission rate measures the incidence of disease or injury per unit of strength. The corresponding noneffective rate combines the effects of both the admission rate and the average time lost per admission. $(\text{Daily Admission Rate}) \times (\text{Average Days Lost}) = \text{Noneffective Rate}$.

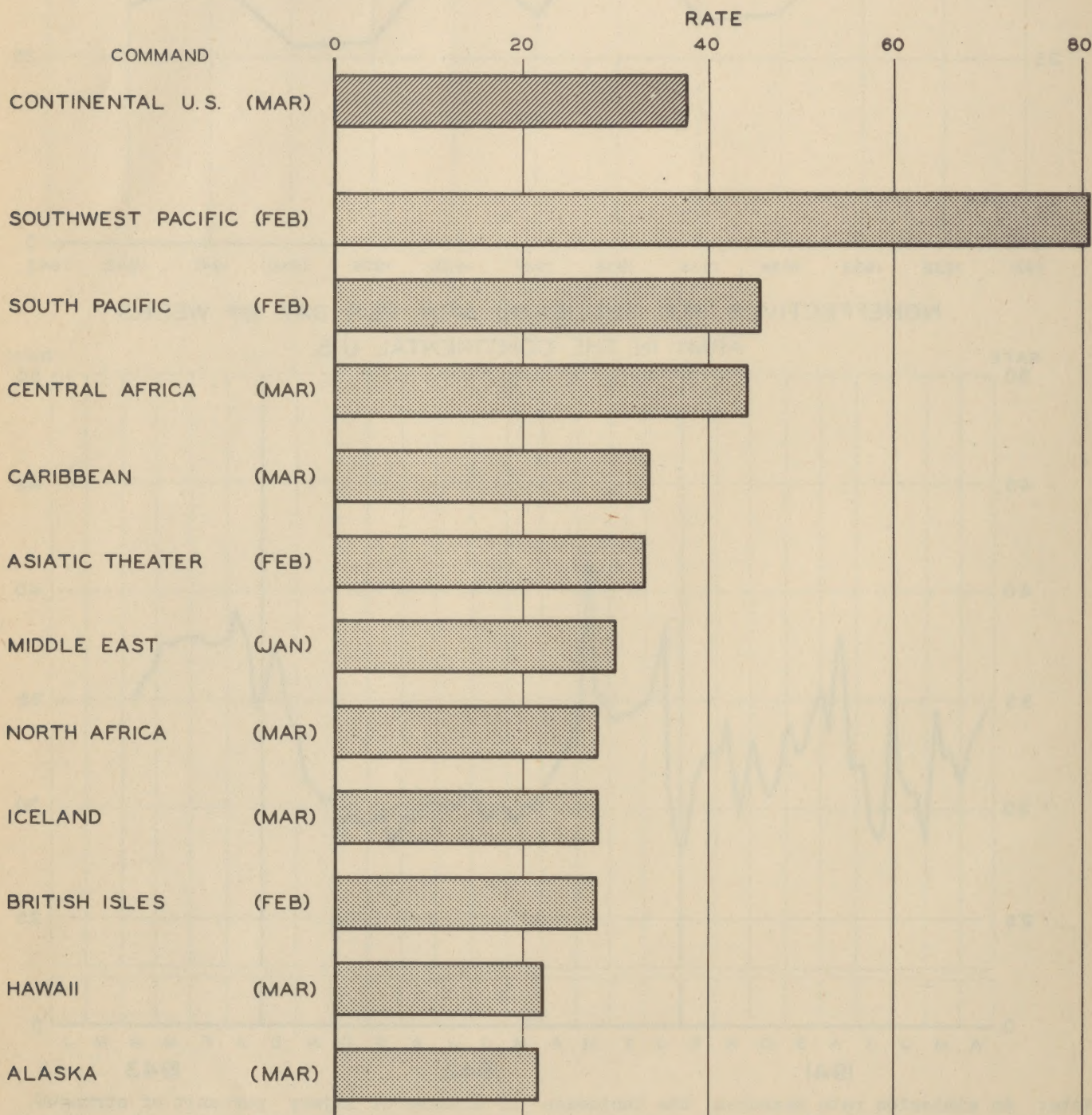
CONFIDENTIAL

DISEASE AND INJURY

NONEFFECTIVE RATES OVERSEAS

The latest noneffective rates are shown below for various theaters and lesser commands. In all but three of these areas the rates are lower than that for troops in the Continental U. S. In the Southwest Pacific the rates have climbed steadily as battle injuries and infectious diseases have taken their toll. In the South Pacific admission rates have been high for malaria, diarrhea and dysentery, and nonbattle injuries. The troops in Central Africa have suffered heavily from malaria. It is the high admission rate for respiratory disease which tends to place the U. S. at a disadvantage.

NONEFFECTIVES PER THOUSAND MEN PER DAY, U. S. AND OVERSEAS, 1943



DISEASE AND INJURY

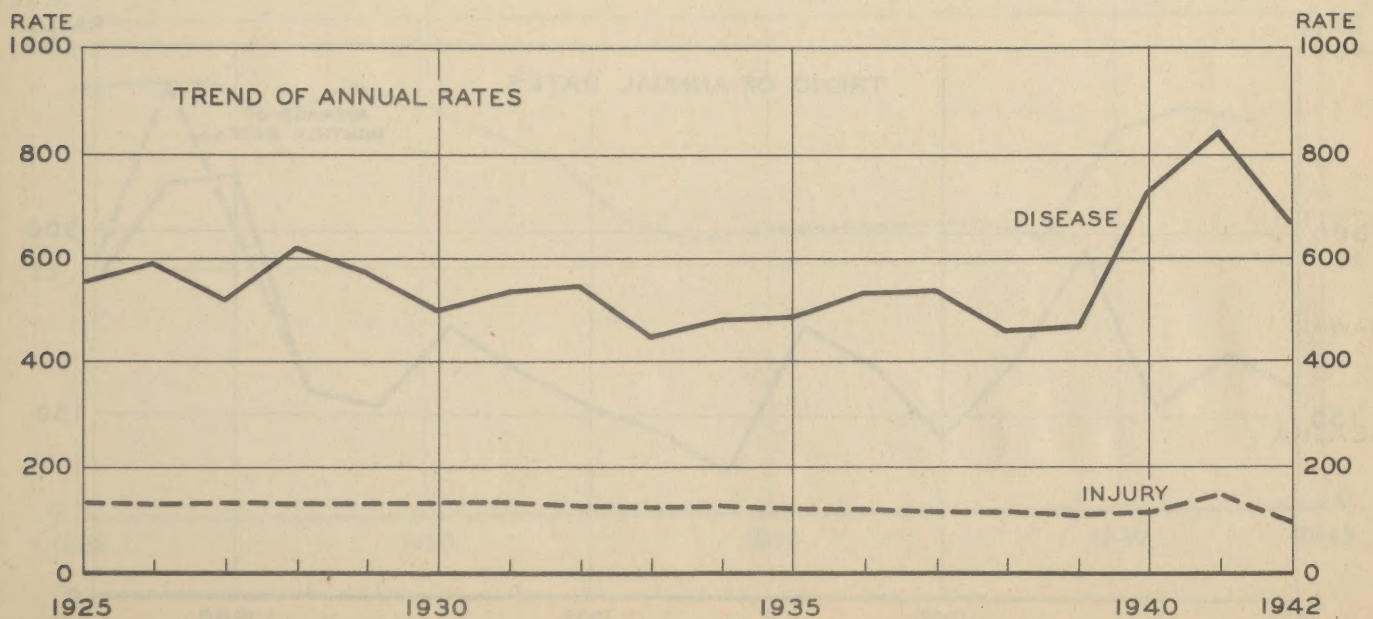
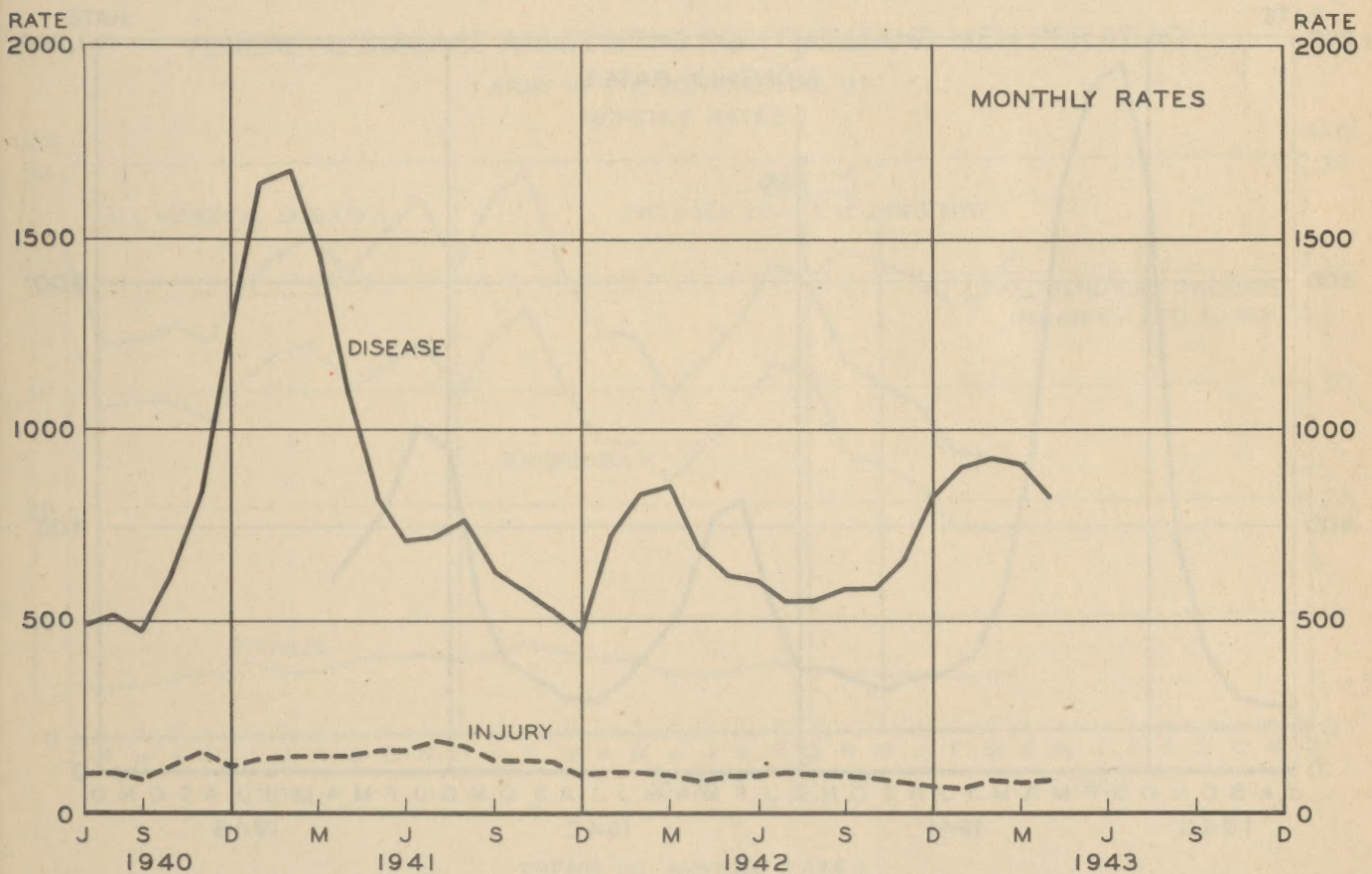
CONFIDENTIAL

DISEASE AND INJURY, CONTINENTAL U. S.

During January, February, and March the admission rate for all diseases remained fairly constant at slightly above 900 admissions per thousand strength per year. In April, however, the preliminary rate fell to 819. The admission rate for injuries was 82, about the same as those for February and March. Both series of rates are shown on the following chart for the period July, 1940, to date. The chart at the bottom of the page gives the trend of annual rates from 1925 through 1942.

The rate of admission for disease increased during 1940 with the onset of mobilization, the disruption of normal life in fixed camps, the influx of new recruits, the construction of new camps, and the beginning of a widespread epidemic of mild influenza. Although the admission rate has been above average for 1940-1943, the death rate has been well below the peacetime level.

DISEASE AND INJURY, ADMISSIONS PER THOUSAND MEN PER YEAR
ARMY IN THE CONTINENTAL U.S.



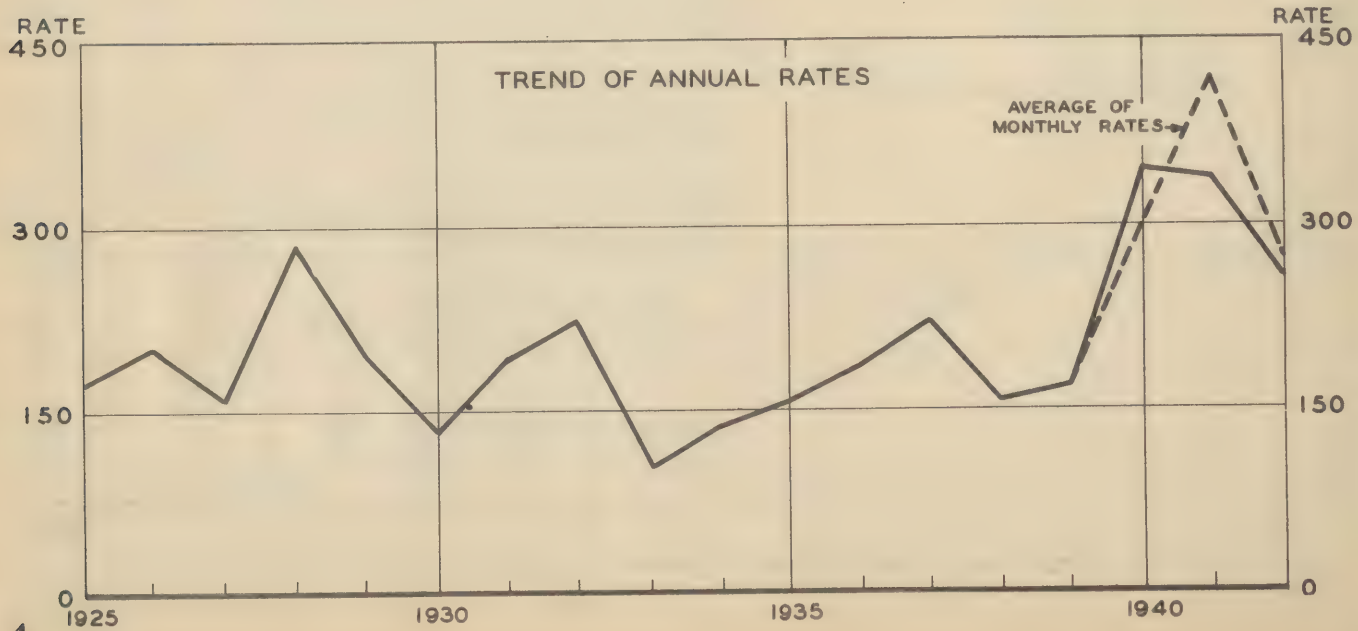
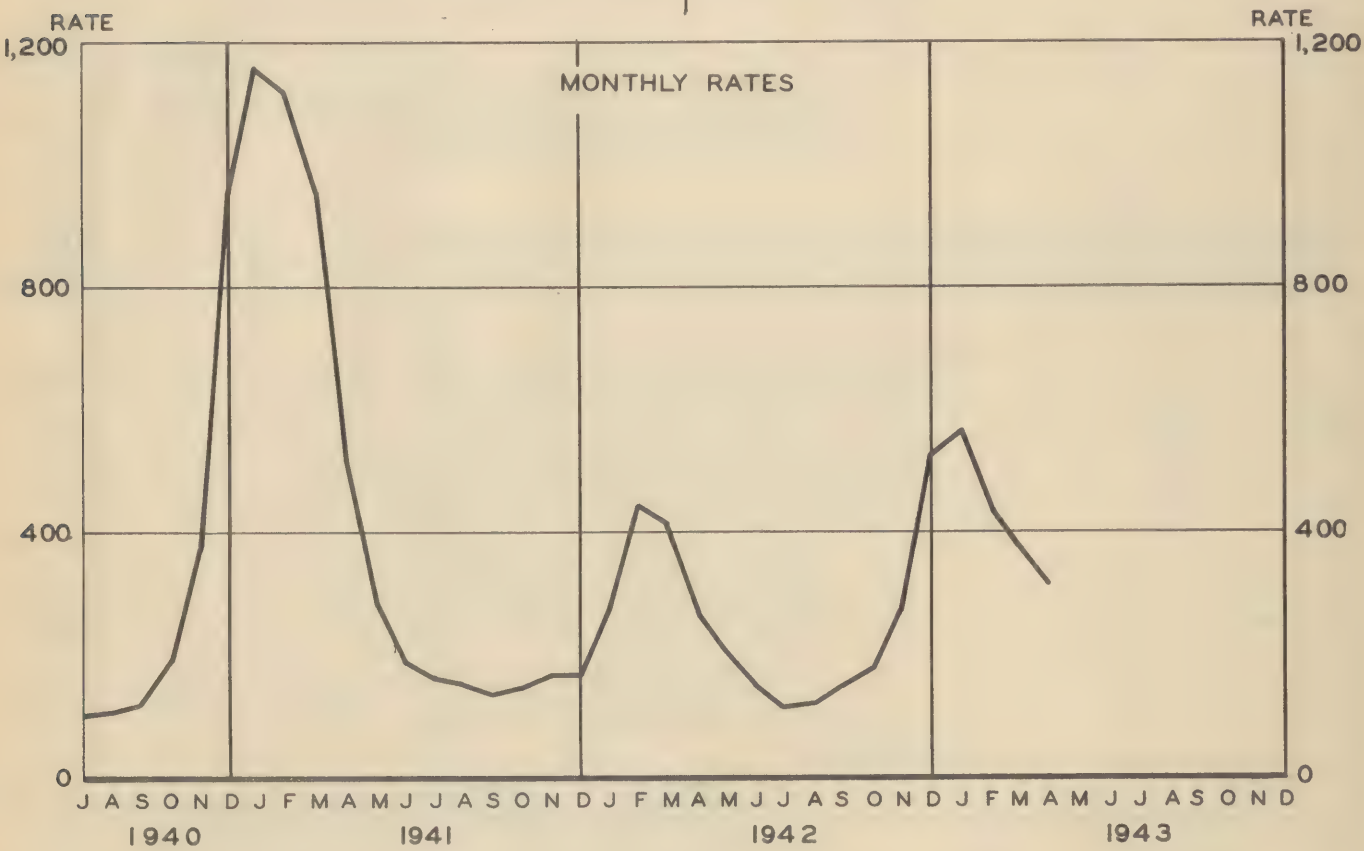
CONFIDENTIAL

DISEASE AND INJURY

RESPIRATORY DISEASES, CONTINENTAL U. S.

Admissions for all respiratory diseases have continued their seasonal decline from the winter peak of 567 for January. The provisional rates for March and April are 376 and 316 admissions per thousand men per year. In the chart which follows the average monthly rates are shown for the period July, 1940, to date. At the bottom of the page there appears a line graph of the annual rates from 1925 through 1942. The steady increase in the strength of the Army has produced an artificially high respiratory disease rate for 1940 and an artificially low rate for 1941. This is because the influenza epidemic began when the 1940 strength was highest and ran its course well before the 1941 strength attained its maximum. When the rates for 1940-1942 are computed by merely averaging the 12 monthly rates, instead of dividing total admissions by average strength for the year, a truer picture is obtained.

RESPIRATORY DISEASE, ADMISSIONS PER THOUSAND MEN PER YEAR
ARMY IN CONTINENTAL U. S.



DISEASE AND INJURY

CONFIDENTIAL

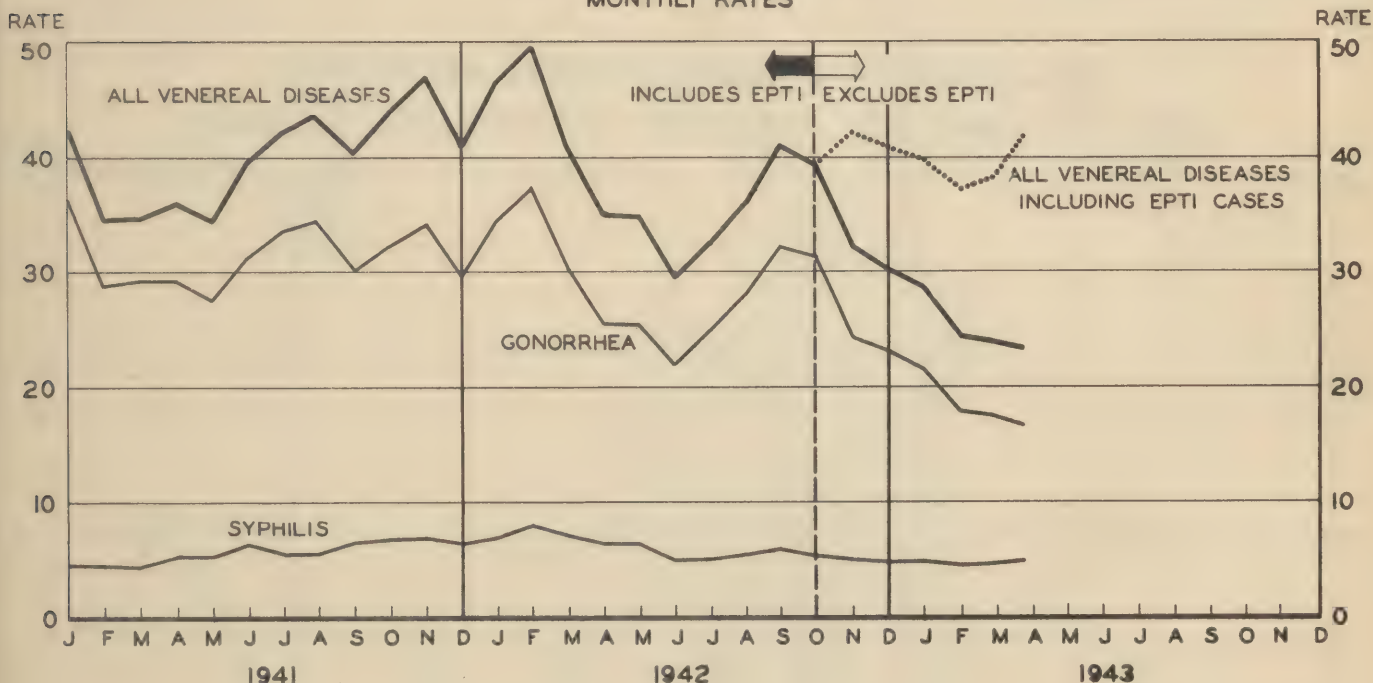
VENEREAL DISEASE, CONTINENTAL U. S.

With the induction of increasing numbers of infected men for treatment in the Army, the uncorrected admission rate (shown as a dotted extension on the top line of the chart below) continues at a high level. During the four weeks ending April 24 two-thirds of all syphilis admissions, and one-third of all gonorrhea admissions, were classified as EPTI (exposed prior to induction). With the exclusion of EPTI cases the provisional rates are only 4.9 admissions per 1,000 men per year for syphilis, 16.6 for gonorrhea, and 23.5 for all venereal diseases.

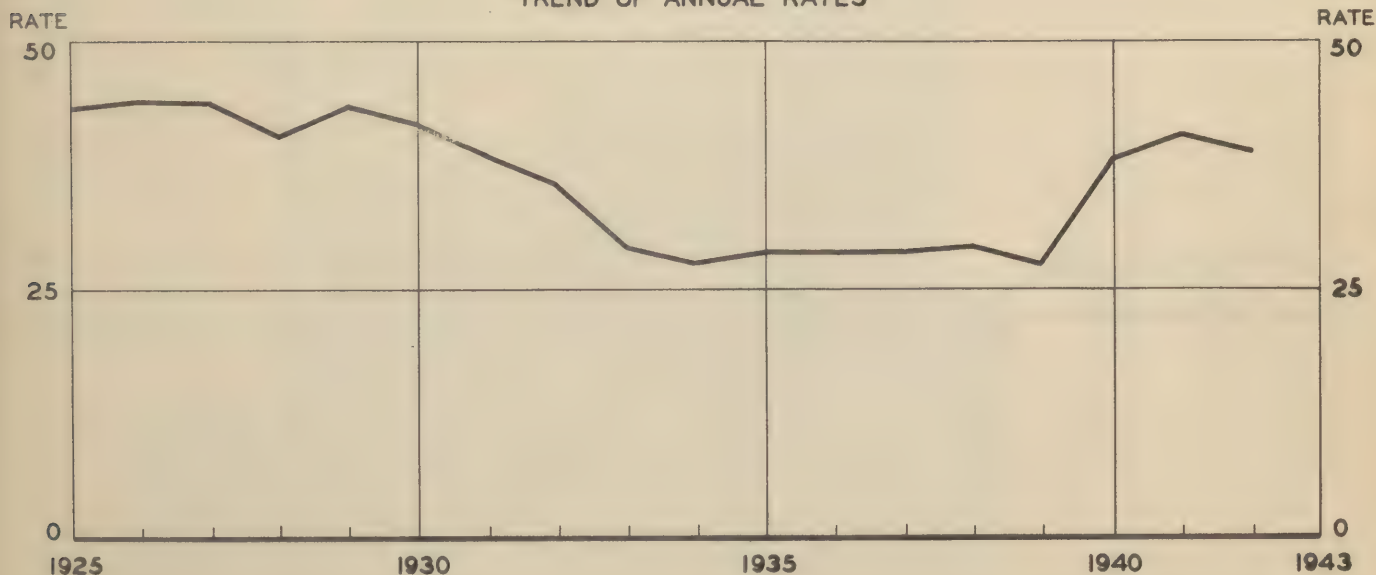
The trend in the gross rate of admission from 1925 through 1942 is shown in the graph at the bottom of the page. The exceptionally low rates of 1933-1939 were not maintained under mobilization conditions, with the influx of young men and the disruption of normal activities. However, some part of the apparent increase of 1940-1942 must be attributed to infections acquired prior to induction or to reporting for active duty. The present corrected rates compare favorably with the rates of earlier years.

VENEREAL DISEASE ADMISSIONS PER THOUSAND MEN PER YEAR

ARMY IN THE CONTINENTAL U.S.
MONTHLY RATES



TREND OF ANNUAL RATES



RESTRICTED

CONFIDENTIAL

DISEASE AND INJURY

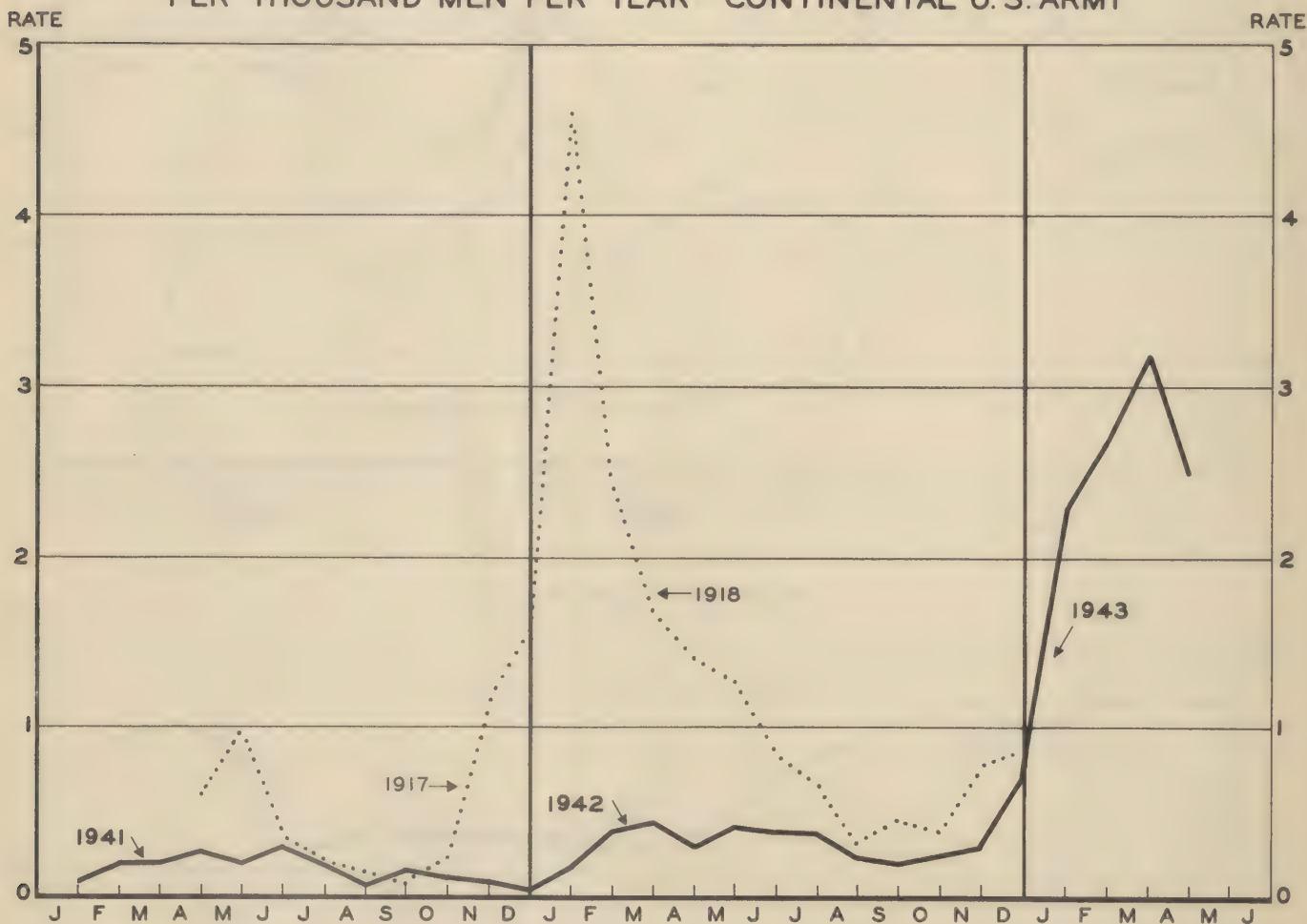
MENINGITIS, CONTINENTAL U. S.

The epidemic of meningococcal meningitis among troops in the Continental U. S. is now in its declining phase. The incidence of meningitis fluctuates in cyclic fashion at intervals of several years, and tends to be especially prevalent during war time. From a peak of 3.18 per thousand men per year, the provisional rate of admission has fallen to 2.34 for April and for six consecutive weeks the number of new cases each week has been less than that for the preceding week. The peak epidemic rate was ten or more times that characteristic of interepidemic years. Even during the peak month of March, on the other hand, meningitis accounted for only one-third of one percent of all admissions for disease among troops in the Continental U. S. The importance of the disease derives more from its effect upon morale than from its elevation of the noneffective rate.

Except for the British Isles, where American troops have experienced rates somewhat similar to those reported for troops in the Continental U. S., the Army forces have suffered less from meningitis overseas than at home.

The case-fatality rate has been estimated at roughly three to four percent or about one-tenth of that which prevailed in 1918. The improvement may be attributed to the successful use of sulfonamides.

ADMISSIONS FOR MENINGOCOCCAL MENINGITIS
PER THOUSAND MEN PER YEAR - CONTINENTAL U. S. ARMY



DISEASE AND INJURY

MENINGITIS, CONTINENTAL U. S. (Continued)

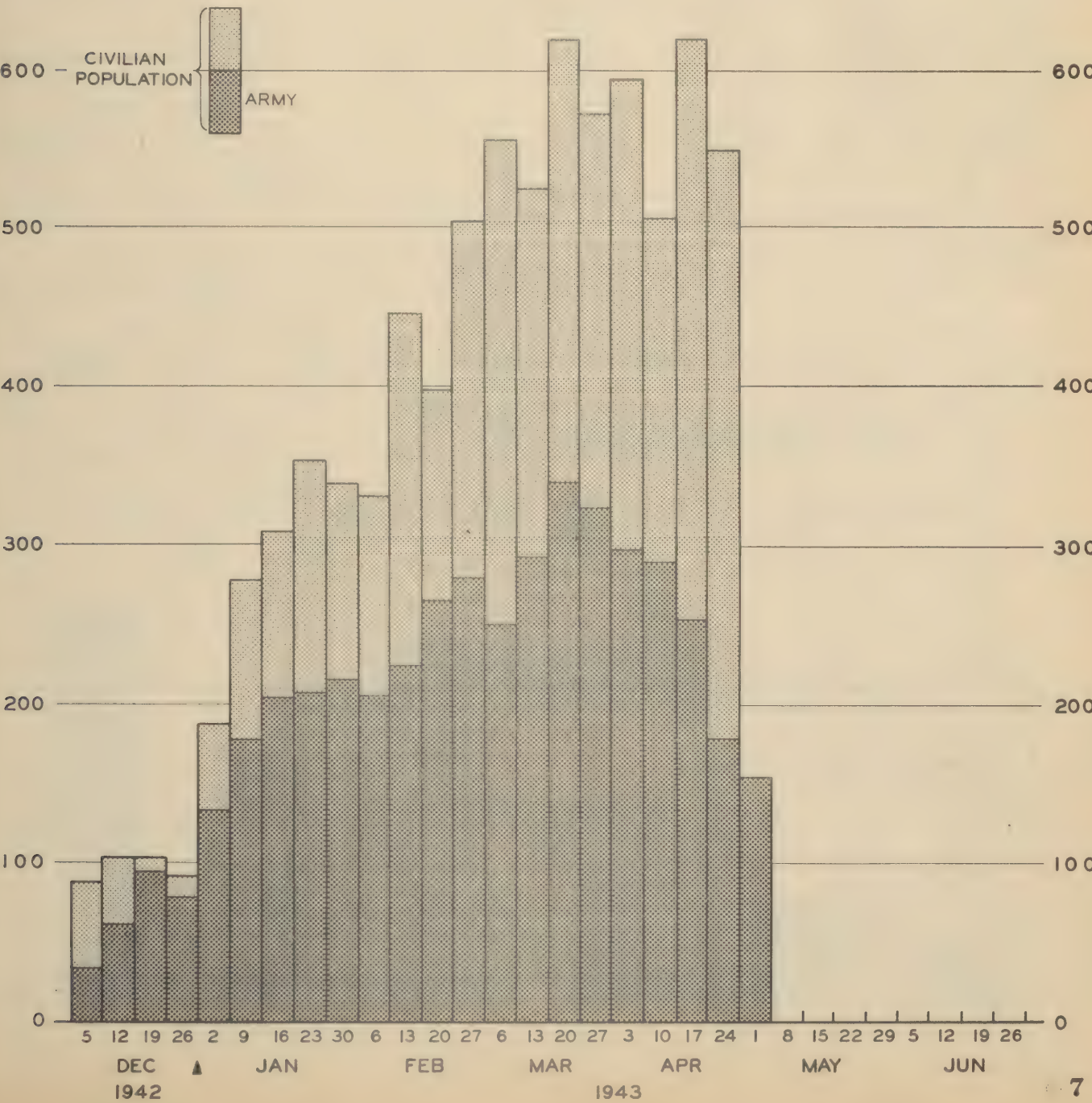
The present epidemic has been less severe than that of 1918, but the period of increased prevalence has been more protracted. Although civilian reporting is probably incomplete, the epidemic curve has been roughly similar for both the civilian and the military populations. The bar chart below gives the number of weekly admissions reported by the U. S. Public Health Service as well as those reported for the Army. The rates for the civilian population, which are well below the Army rates, have also been about ten times their usual level.

The epidemic has afforded an opportunity to test the prophylactic value of sulfonamides. Some excellent work has been carried out, especially in the Third, Fourth, and Ninth Service Commands. The results of administering small doses to large bodies of troops show considerable promise. These studies are still in progress and recommendations by The Surgeon General on the prophylactic use of sulfadiazine may be expected when they are completed.

WEEKLY ADMISSIONS FOR MENINGOCOCCAL MENINGITIS

CIVILIAN POPULATION AND ARMY IN THE CONTINENTAL U.S.

ADMISSIONS 700 CIVILIAN POPULATION AND ARMY IN THE CONTINENTAL U.S. ADMISSIONS 700



CONFIDENTIAL

DISEASE AND INJURY

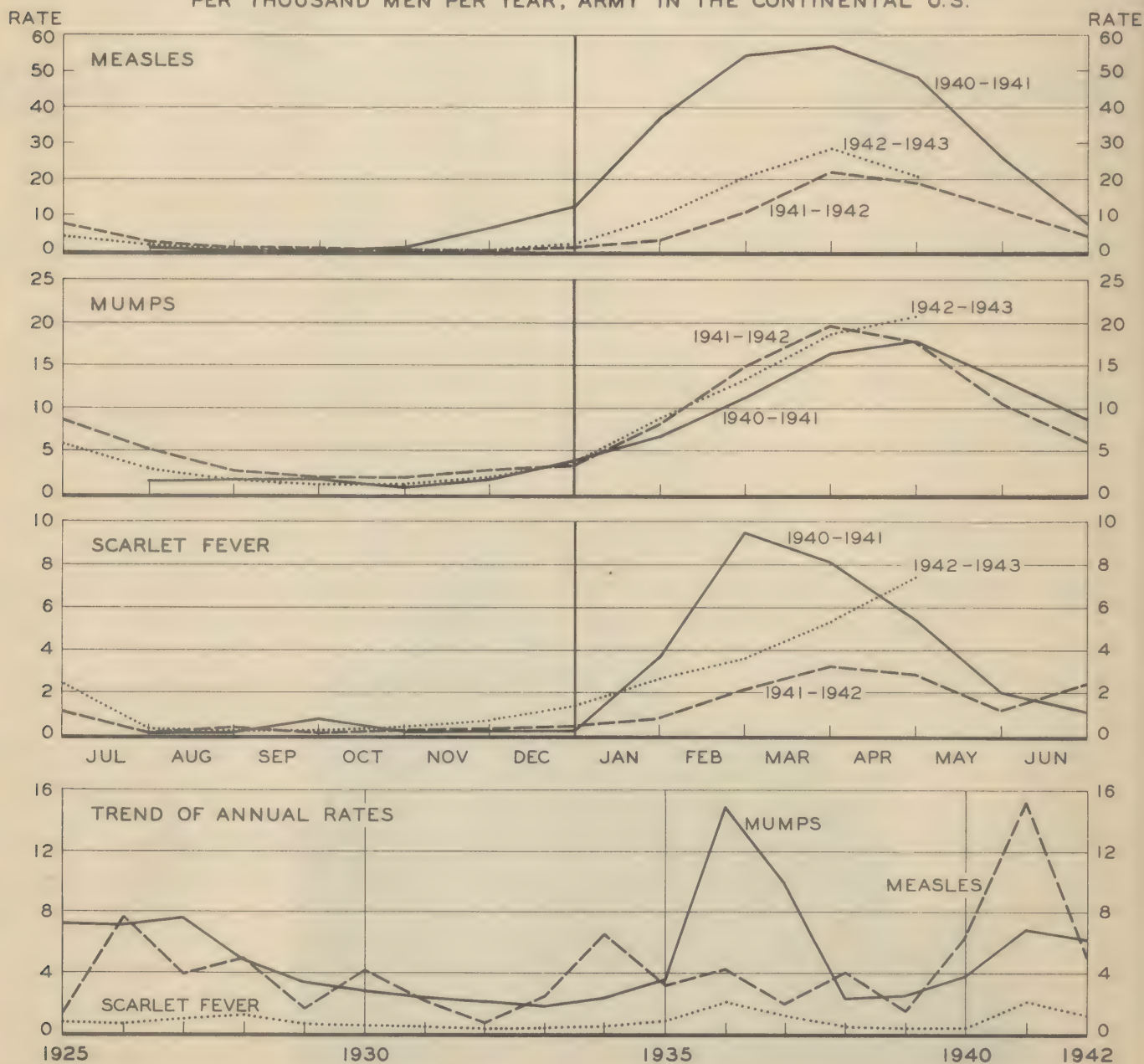
MEASLES, MUMPS, AND SCARLET FEVER

During the winter and spring months, when the common respiratory diseases are most frequent, measles, mumps, and scarlet fever, which are acquired through the respiratory tract, also tend to increase. The incidence of measles has been higher this year than in 1942, but far lower than in 1941. The chart below traces the monthly rates for the last three winter seasons.

The 1943 rates of admission for mumps are about of the same order as those for 1941 and 1942. Scarlet fever has been more prevalent this year than during the corresponding months for 1942, and has now almost attained the high frequency reported for 1941. The seasonal pattern of the rates of admission is shown below for these two diseases for the last three years.

Measles, mumps, and scarlet fever accounted for slightly less than 6 percent of the total admissions for disease during March, generally the month of highest prevalence for these common communicable diseases. Their chief importance lies in their contribution to the noneffective rate and to the burden of hospital care. They have only a negligible influence upon the death rate.

ADMISSIONS FOR COMMON COMMUNICABLE DISEASES
PER THOUSAND MEN PER YEAR, ARMY IN THE CONTINENTAL U.S.



DISEASE AND INJURY

RESTRICTED
CONFIDENTIAL

DENTAL SERVICE

The relative amount of dental work per 1,000 men increased gradually during 1942 and has been sustained during the first three months of 1943 despite some lowering in the ratio of dental officers to Army strength. The greatest single increase has taken place in the relative number of dentures constructed. During 1942 the numerical equivalent of about 30 percent of the extracted teeth was replaced with dentures and bridges. During January, February, and March 1943, the percentages were 58, 72, and 82. Since many inductees enter the Army with missing teeth which require appliances and the extraction of one or two teeth may not necessitate replacement, the dentures and bridges do not necessarily replace the particular teeth extracted by the Dental Corps. The following table gives a summary of work done for 1942 and for the first three months of 1943.

DENTAL ADMISSIONS AND TREATMENTS
ARMY IN THE CONTINENTAL U.S.

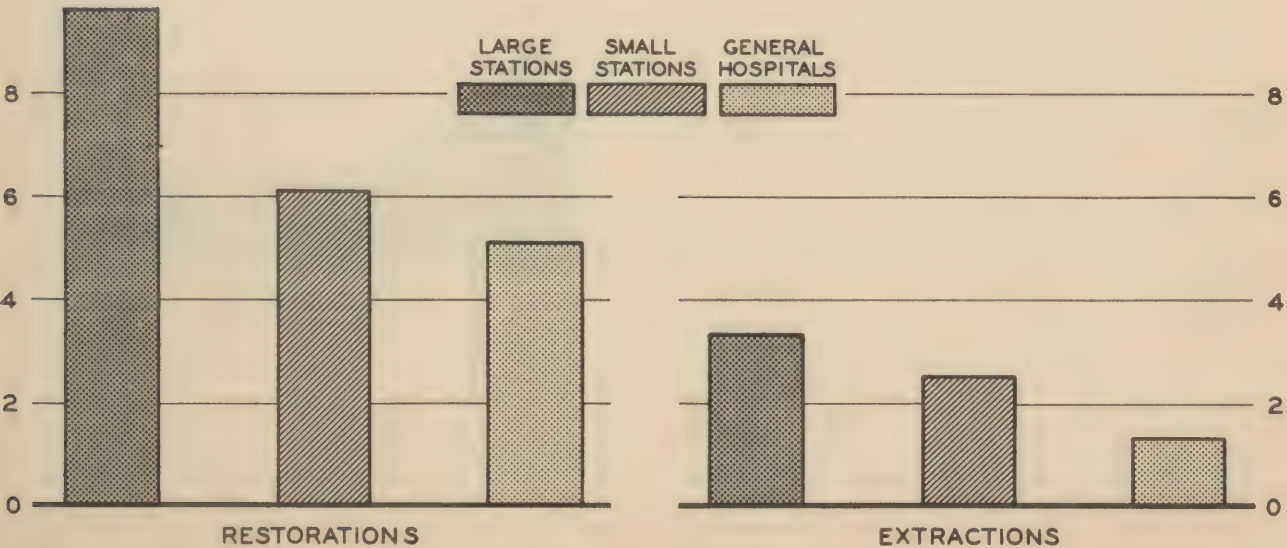
Admissions, Attendance and Treatment	Total 1942	1943		
		Jan	Feb	Mar*
Admissions	4,319,506	697,408	674,373	735,820
Sittings	13,009,292	1,942,053	1,932,986	2,105,456
Permanent Fillings	7,830,688	1,419,943	1,341,132	1,541,737
Extractions	3,302,781	566,795	525,172	562,546
Dentures Constructed	145,899	39,036	44,969	55,050
Dentures Repaired	40,527	7,709	7,536	8,400
Bridges Constructed	11,405	1,781	1,792	2,133
Bridges & Crowns Repaired	16,685	3,002	2,185	2,684
Crowns Constructed	6,331	798	858	938
Root Canal Fillings	8,688	1,080	1,012	1,326
Prophylaxis	964,832	135,836	129,808	141,772
Teeth Replaced	980,769	327,425	377,939	458,753

* March will have appreciable additions from overseas reports.

In large measure the gain has been accomplished by the more effective distribution of supplies and equipment, by the assignment of a larger number of better trained enlisted technicians to dental laboratories, and by the greater efficiency of dental officers.

The following chart compares large stations, small stations, and general hospitals as to average amount of dental work done per dental officer. The data are for the month of March and are preliminary only. Dental officers in the large clinics at the large replacement training centers accomplish more than dental officers in small clinics. Officers stationed in general hospitals spend a considerable portion of their time in consultation.

EXTRACTIONS AND RESTORATIONS PER DENTAL OFFICER PER DAY
ARMY IN THE CONTINENTAL U.S., MARCH 1943



HOSPITALIZATION

CONFIDENTIAL

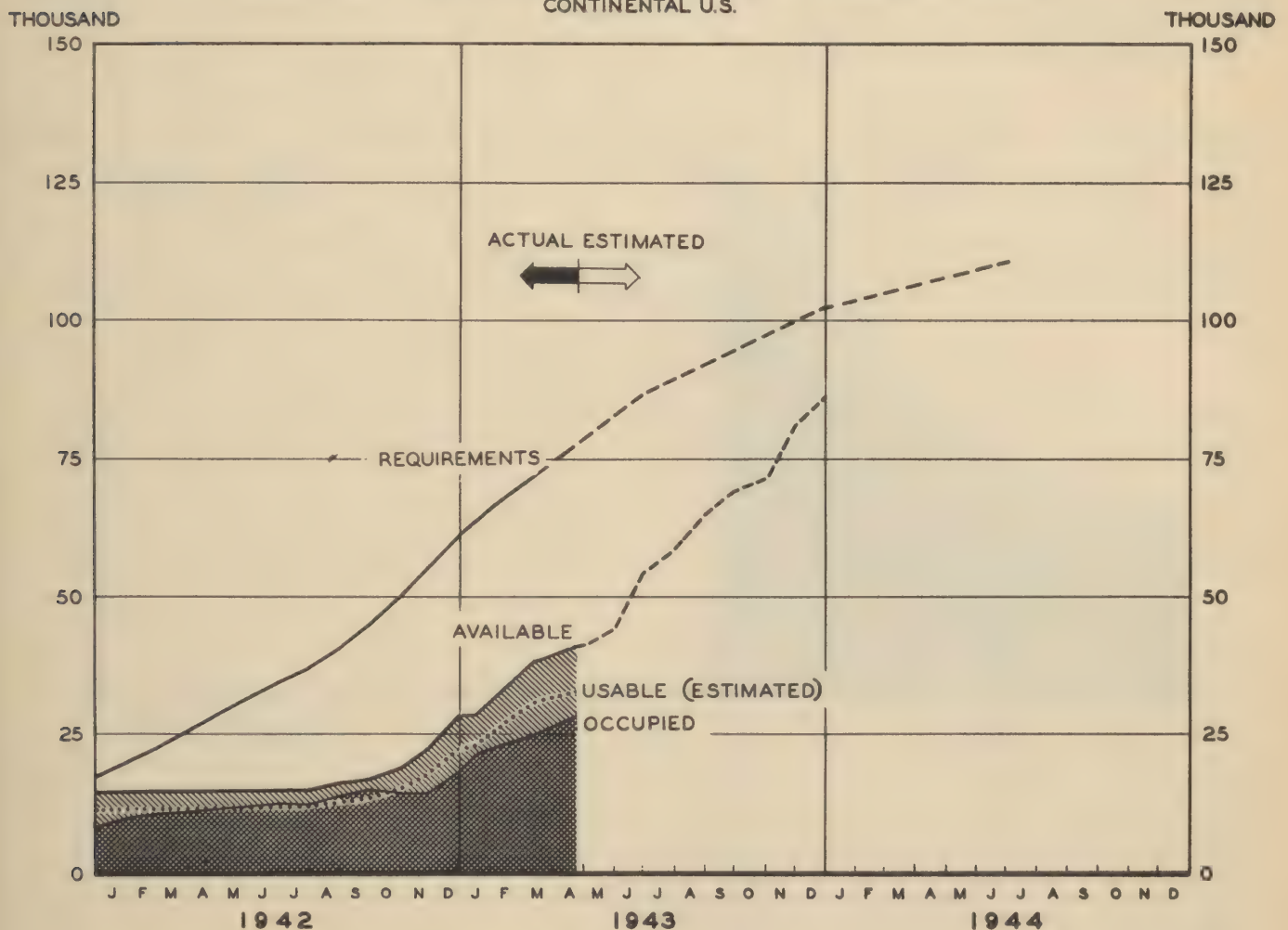
UTILIZATION OF AND REQUIREMENTS FOR BEDS IN GENERAL HOSPITALS

The requirements for beds in general hospitals are calculated at 1 percent of all troops in the Continental U. S. plus 1.7 percent of all troops overseas. The estimated needs for the period January 1942, to June 1944, are shown in the chart below. The line of projected availability reflects construction in progress, and will be revised as new sites are selected and construction begun. Attainment of the present schedule would provide 81,000 normal beds by the end of November, about 81 percent of the requirements for that date.

Since the Army enjoyed excellent health during 1942, and since overseas action requiring evacuation was minimal, no penalty attached to the failure to meet the calculated requirements. The total number of occupied beds is shown by the bottom solid line. The broken line close to it represents the average limit of normal utilization without overcrowding, since at any one time about 20 percent of the available normal beds cannot be used because they are located in the "wrong" wards. When more than 80 percent of the normal beds are occupied, it indicates that in the average hospital emergency beds have been crowded into corridors and solaria, or that patients have been placed in expansion barracks.

The number of normal beds available in general hospitals increased from 38,100 on March 13 to 40,600 on April 24. On the latter date about 70 percent of the normal beds were occupied, slightly above the figure of 66 percent reported for March 13.

REQUIRED AND AVAILABLE GENERAL HOSPITAL BEDS
CONTINENTAL U.S.



CONFIDENTIAL

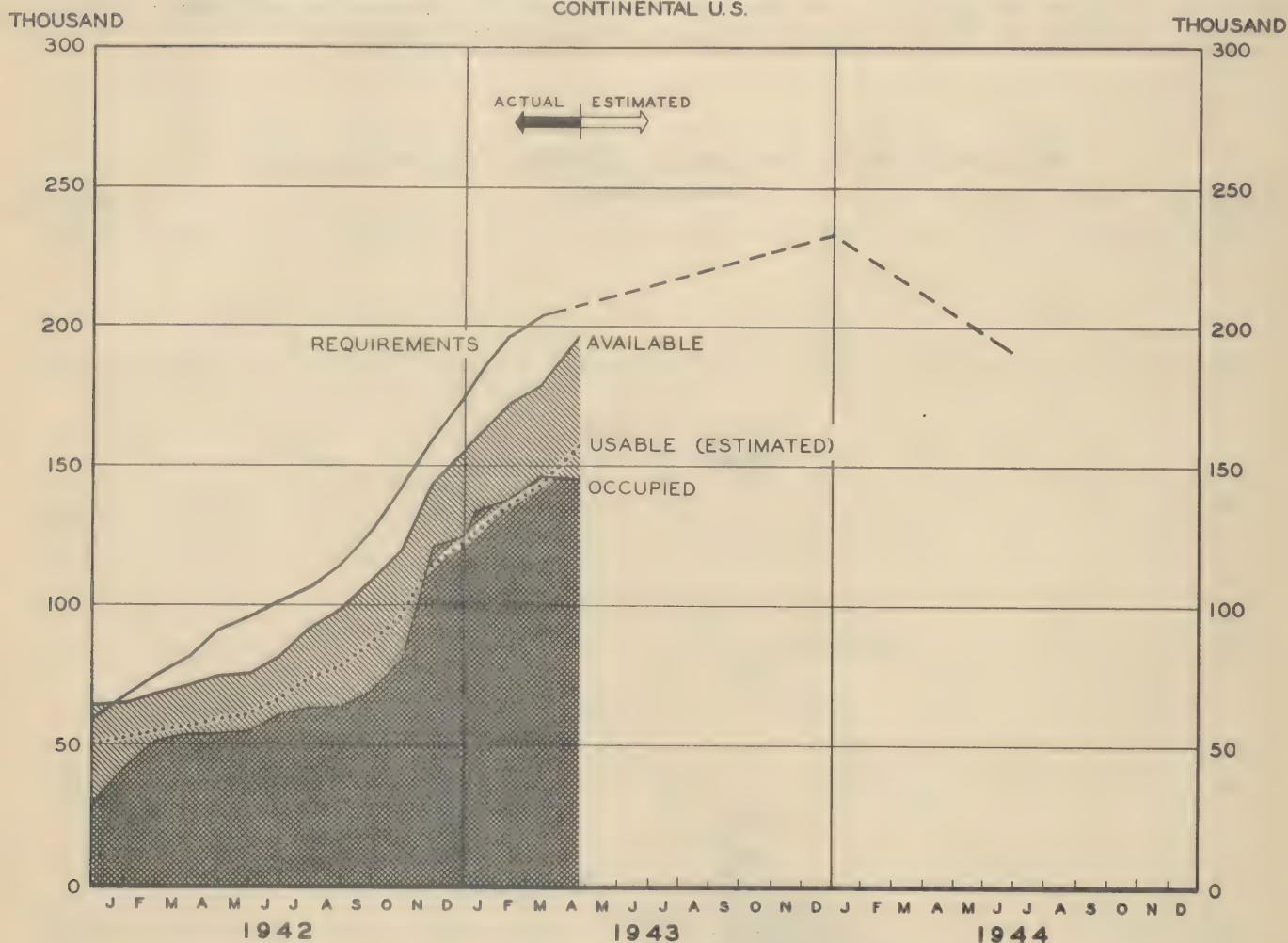
HOSPITALIZATION

UTILIZATION OF AND REQUIREMENTS FOR BEDS IN STATION HOSPITALS

The requirements for beds in station hospitals in the Continental U. S. are calculated on the basis of 4 percent of the strength of the troops to be stationed here. The uppermost line on the chart below gives the estimated need for beds in station hospitals from January, 1942, to June, 1944. The other lines show the total number of occupied beds, the number of available normal beds, and the estimated number of usable normal beds (80% of the number of available normal beds), to indicate average utilization without overcrowding.

The number of available normal beds increased from 179,400 on March 13 to 196,600 on April 24. On the latter date the percentage utilization (total beds occupied normal beds available) declined from 82 to 74. This degree of utilization reflects the seasonal decline in the rate of admission to hospitals.

REQUIRED AND AVAILABLE STATION HOSPITAL BEDS
CONTINENTAL U.S.



HOSPITALIZATION

CONFIDENTIAL

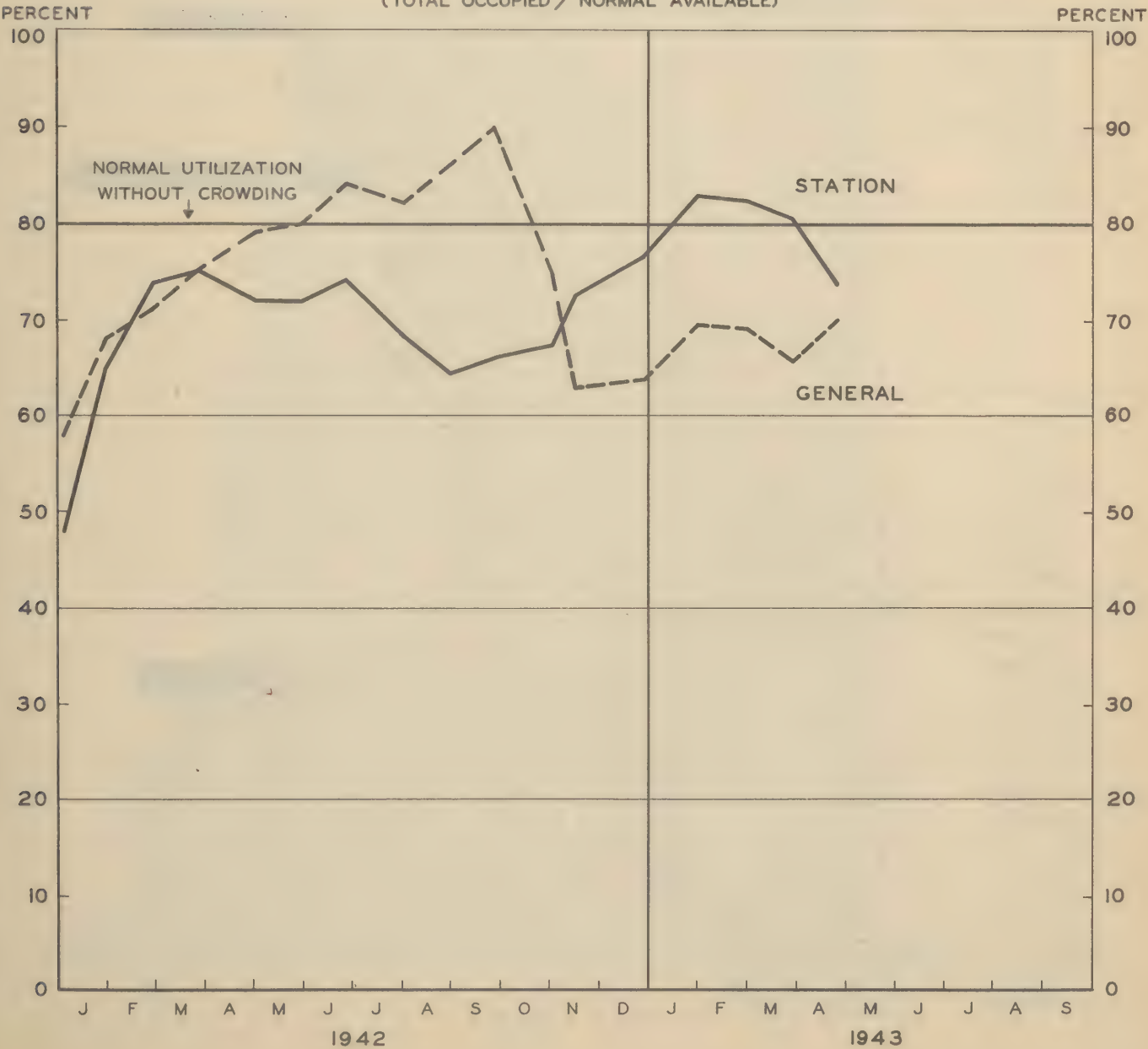
TREND IN UTILIZATION OF BEDS, STATION AND GENERAL HOSPITALS

The intensity with which hospital facilities are utilized may be estimated from the preceding charts, but the trend can be followed more readily with a simple line graph such as that which appears below. It gives the percent utilization over the period January 1942, to date, separately for station and general hospitals. If one takes the 80 percent line as a rough guide to crowded conditions, it is plain that general hospitals were crowded in the early fall, 1942. In preparation for the North African invasion, the flow of patients from station hospitals was reduced, and even reversed in part, so that the utilization ratio declined sharply. The number of evacuees has been less than that necessarily planned for, and the new low level has been maintained by the addition of new hospital facilities. The safety factor afforded by the present ratio of about 70 percent is not excessive, for beds must be ready for all patients evacuated from overseas. Major offensive action is an immediate prospect, and the precise need cannot be known very far in advance.

The average station hospital began to utilize its normal bed capacity more intensively when the general hospitals were being made ready for anticipated evacuees and then became definitely crowded during January, February, and March. The winter respiratory season was not severe, but, on the other hand, the pressure upon station hospital facilities was not extreme. Part of the reserve of expansion beds remained unused throughout the winter.

TREND OF BED UTILIZATION
STATION AND GENERAL HOSPITALS

(TOTAL OCCUPIED / NORMAL AVAILABLE)



CONFIDENTIAL

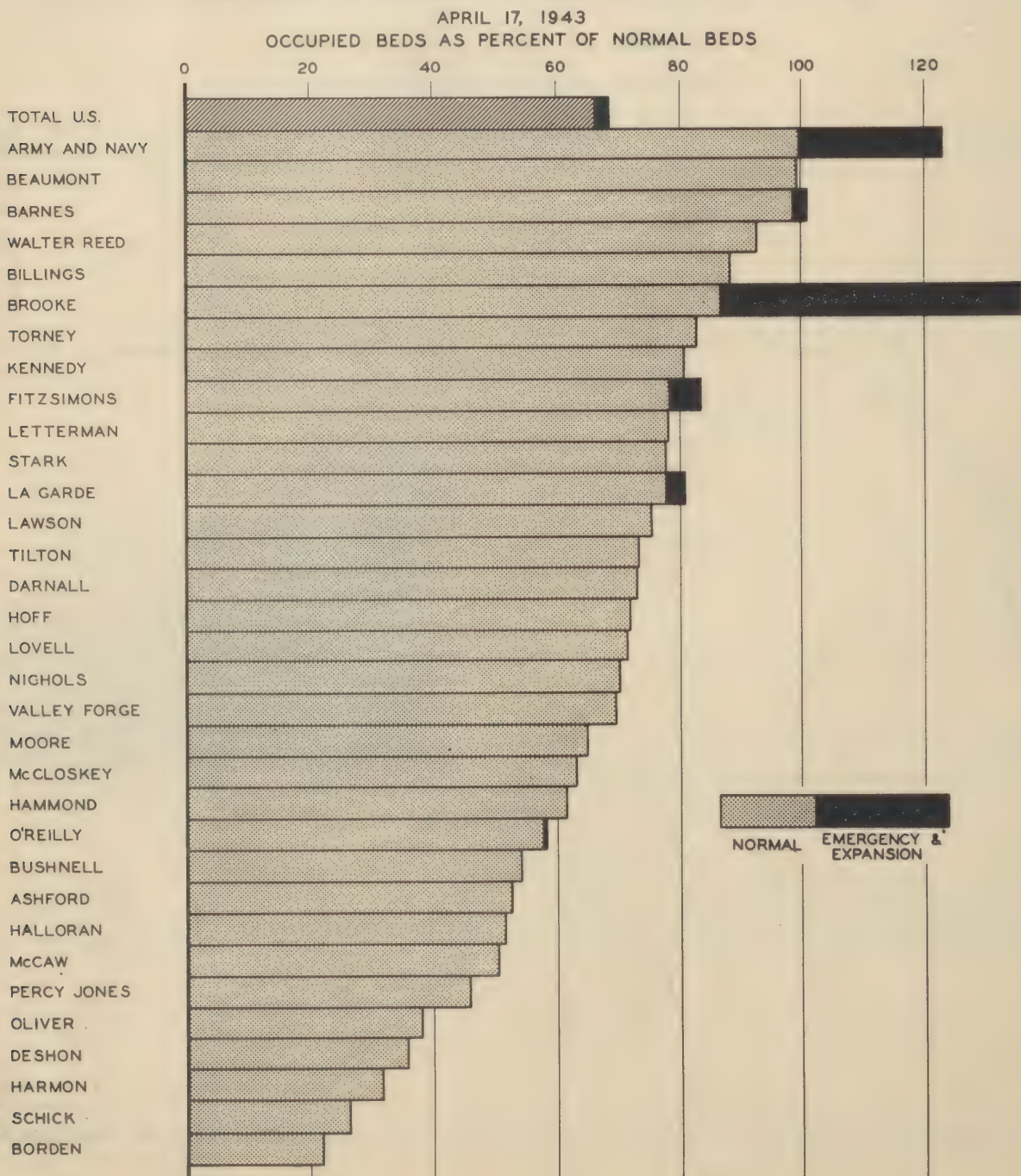
HOSPITALIZATION

VARIATION AMONG GENERAL HOSPITALS IN UTILIZATION OF NORMAL BEDS

On April 17 the average utilization of normal beds in general hospitals was 69 per cent, but the individual hospitals varied widely in the intensity of the use of their facilities. The following bar chart ranks the named general hospitals according to the percentage of normal beds occupied on that date. The shaded extensions measure the extent to which expansion or emergency beds were in use. Army and Navy and Brooke reported extensive use of emergency and expansion beds. At Army and Navy General Hospital the use of facilities prior to the completion of their conversion has led to their classification as expansion beds. At Brooke, similarly, a number of beds in expansion barracks will be converted to normal beds. Utilization of facilities at Brooke is considerably increased by the fact that it serves as a station hospital for Ft. Sam Houston and surrounding posts. A number of other general hospitals, especially Barnes and Walter Reed, also serve in part as station hospitals.

The chart also brings out the fact that not all hospitals resort to emergency and expansion beds when 80 percent of their normal beds are filled. This figure is merely an estimated average useful in dealing with the overall picture.

UTILIZATION OF BEDS IN NAMED GENERAL HOSPITALS



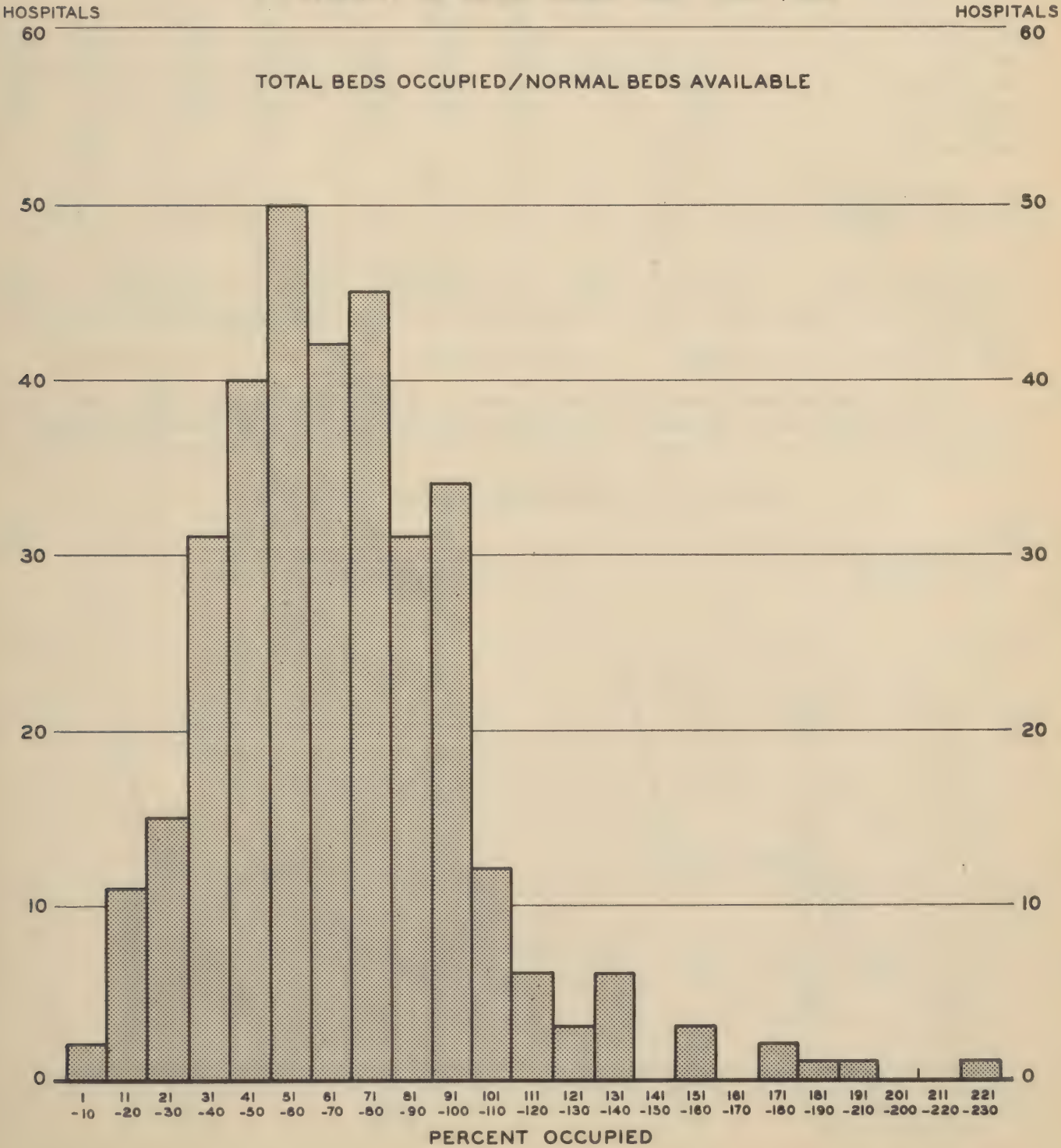
HOSPITALIZATION

CONFIDENTIAL

VARIATION AMONG STATION HOSPITALS IN UTILIZATION OF NORMAL BEDS

The average utilization of beds (total beds occupied / normal beds available) was 74 percent in station hospitals on April 17, but there was wide variation among individual hospitals in this respect. The distribution immediately following shows the wide range and variability which obtained among station hospitals having 100 or more normal beds on April 17, 1943. Ratios above 100 percent surely indicate the use of expansion or emergency beds, but this may also be true of much lower ratios. In some camps the number of beds does not accord with the present strength, whether because recent growth in size has been too rapid for construction to follow, or because of transfer of troops or failure to station there the number for which hospitalization was planned. Sick rates also vary from camp to camp at any particular time, causing variation in the need for hospitalization. Some station hospitals are also required to hospitalize patients from other camps.

DISTRIBUTION OF STATION HOSPITALS ACCORDING TO PERCENT OF BEDS OCCUPIED - APRIL 17, 1943

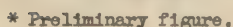


EVACUATION OF PATIENTS FROM OVERSEAS

NUMBER OF PATIENTS ARRIVING IN U. S. PORTS FROM OVERSEAS, BY PORT OF ARRIVAL

* April figures are preliminary ** Not available

PATIENTS EVACUATED FROM OVERSEAS



MORTALITY

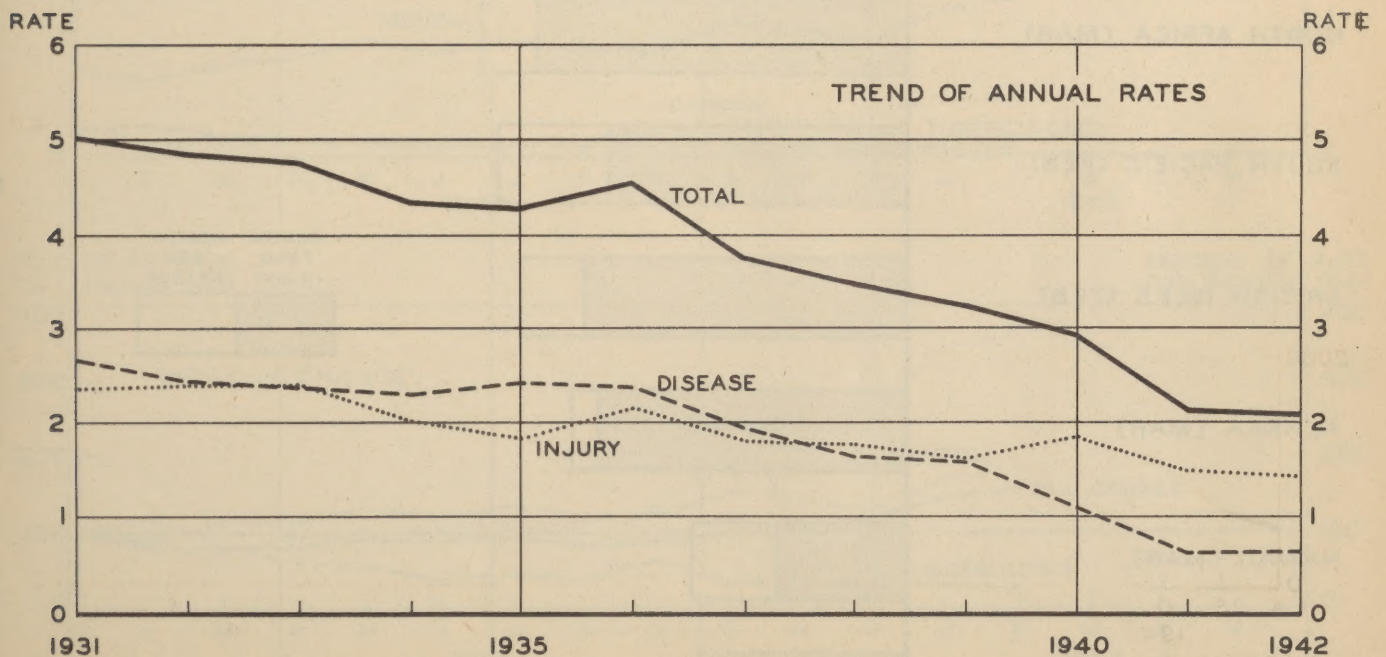
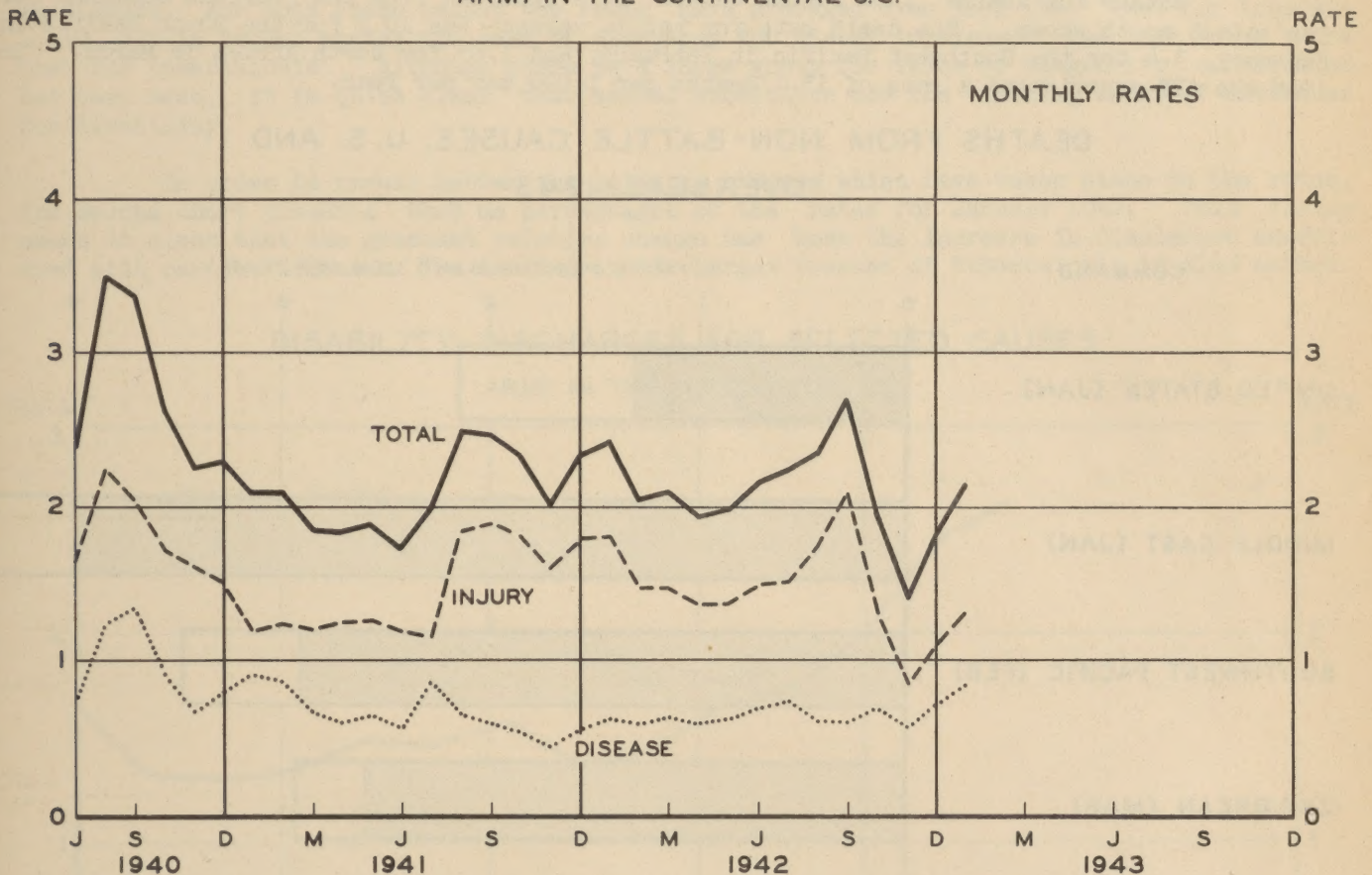
CONFIDENTIAL

DEATH RATES, CONTINENTAL U. S.

In January the death rate for troops in the Continental U. S. rose to 2.13 deaths per thousand men per year. Deaths from both injury and disease contributed to the increase, the rate for disease being higher than at any time during 1942. The accompanying chart covers the period from July, 1940, through January, 1943.

The present death rates are rather lower than those which prevailed during the period 1931-1939, as may be seen from the chart at the bottom of the page. The paramount change has been the decline in the death rate from disease.

DEATHS PER THOUSAND MEN PER YEAR
ARMY IN THE CONTINENTAL U.S.



CONFIDENTIAL

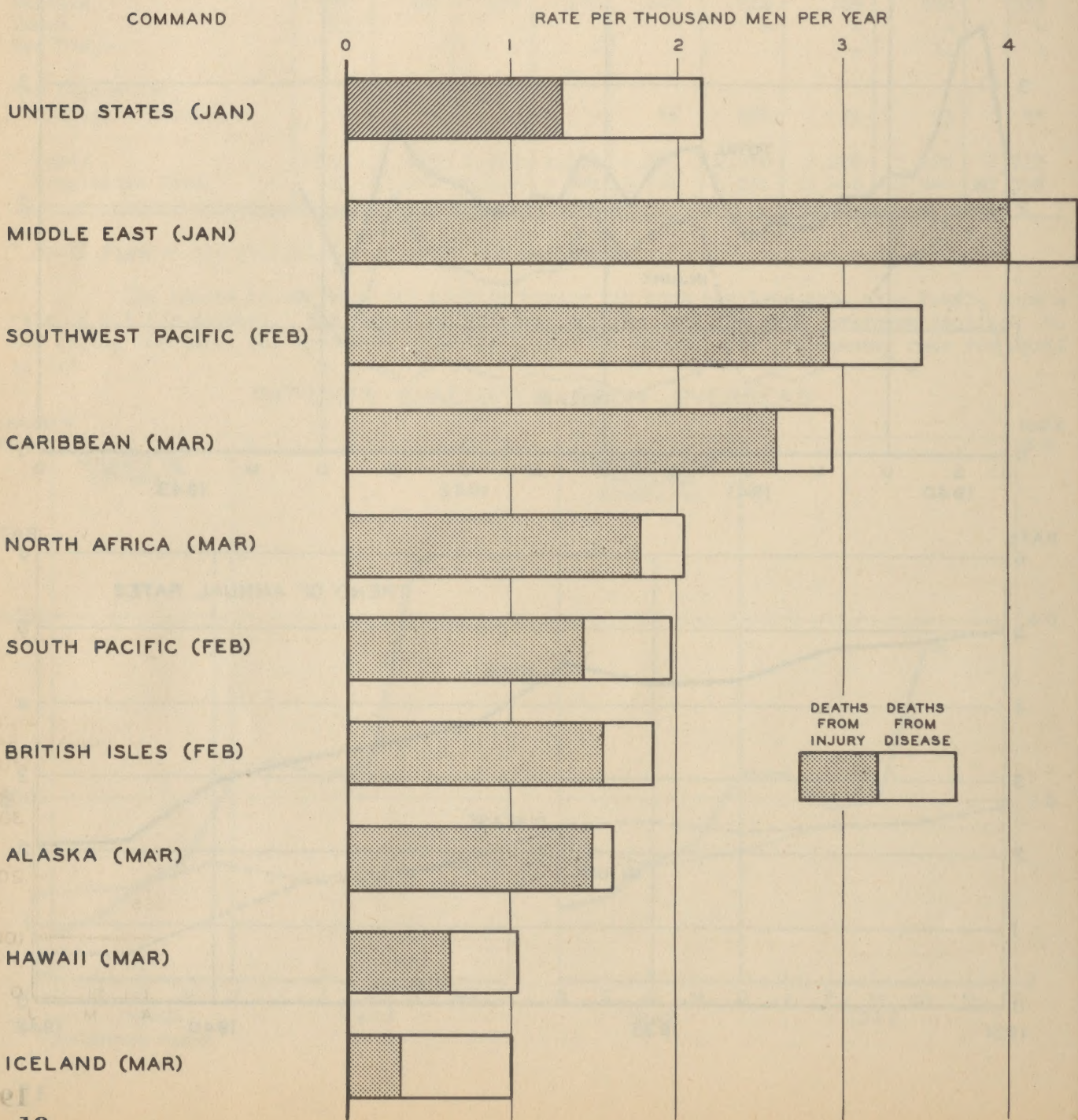
MORTALITY

DEATH RATES OVERSEAS

The average death rates for nonbattle causes among forces overseas have been about as favorable as those reported for troops stationed in the Continental U. S. The accompanying chart arrays various theaters and lesser commands according to the relative magnitude of the most recent death rate available, usually March. Only in the Middle East, the Southwest Pacific, and the Caribbean did the rate exceed that of 2.13 reported for troops in the Continental U. S. during January. Although two of the commands included in the chart are relatively small, the set of rates is more variable than would be expected from chance alone. In the Southwest Pacific and the Caribbean the 1942 death rates were generally higher than those for the Continental U. S. Deaths from nonbattle injuries are the chief factor in making for the high rates.

Rather few deaths from battle causes were reported from the various commands for the latest month shown. The death rate for battle causes was 10.2 for the South Pacific in February, 3.4 for the Southwest Pacific in February, and 1.85 for North Africa in March. In 1918 the AEF experienced a rate of 13.1 deaths per 1,000 men per year.

DEATHS FROM NON-BATTLE CAUSES, U. S. AND OVERSEAS, 1943



MISCELLANEOUS

CONFIDENTIAL

DISABILITY DISCHARGES FROM THE ARMY

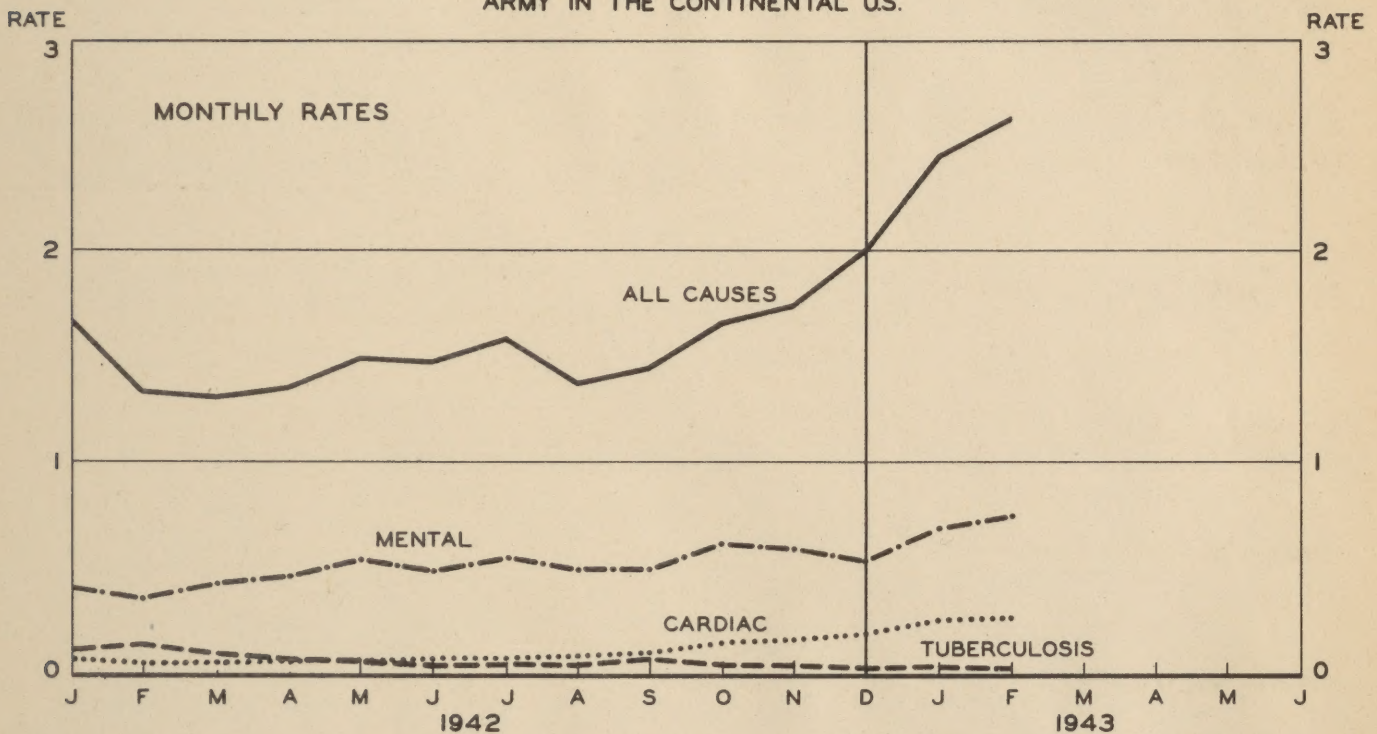
After a considerable rise in 1941 associated with the induction of the National Guard into the Army, the rate of discharge for disability declined in early 1942 to a low point of about 1.3 discharges per thousand strength per month. In the fall it began to increase rapidly, and for February 1943, it stood at 2.6, close to the peak for 1941. The first chart below shows the trend of the monthly rates for 1942-1943.

In addition to the rate for all disability discharges, the chart gives those attributed to mental disease and deficiency, cardiac disease, and tuberculosis. The rates for individual groups of causes are provisional in that they are based on a sample of about 85 percent of all discharges for disability, with a correction to bring the sample to 100 percent. In addition to those shown, rates have also been computed for traumatism and visual impairment. For both these causes the rates have averaged even less than that for tuberculosis, but in recent months the rate of discharge for visual impairment has been about twice that for tuberculosis. Although there is a large group for which no diagnostic subdivision has been made, it is quite clear that mental conditions are the leading cause of discharge for disability.

In order to reveal better the relative changes which have taken place in the rates, the second chart presents them as percentages of the rates for January 1942. This device makes it clear that the greatest relative change has been the increase in discharges associated with cardiac disease. The decline in discharges because of tuberculosis is also marked.

DISABILITY DISCHARGES FOR SELECTED CAUSES

ARMY IN THE CONTINENTAL U.S.

PERCENT OF RATE
FOR JANUARY 1942PERCENT OF RATE
FOR JANUARY 1942